

Description

Mechanical connection between side walls and the rear wall of a sheet-metal casing

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The present invention relates to a mechanical connection between the side walls and the rear wall of a sheet-metal casing.

- 10 The mechanical connection between the side walls of a sheet-metal casing and the rear wall usually takes place by means of additional measures, e.g. welding, riveting, screwing, adhesive bonding, etc. and/or by means of additional manipulating operations, such as,
- 15 for example, bending lugs, etc.

- The object of the present invention is to specify a mechanical connection of the type mentioned in the introduction which can be produced without additional
- 20 measures being required.

- This object is achieved for a mechanical connection of the type mentioned above in that the base part, side walls and rear wall of the sheet-metal casing comprise
- 25 a single sheet-metal part, in that the side walls have a cutout in the region of the top rear corner, and in that the rear wall has an angled section which, on its sides, has hook-like extensions which snap into the cutouts of the side walls when the actual rear wall is
- 30 swung into position.

- In the case of the mechanical connection according to the invention, the blank of the sheet-metal part, which forms, inter alia, the side walls and the rear wall, is
- 35 configured such that, during the bending operation immediately after the rear wall has been swung into position, said rear wall is forced to snap into the

side walls, and mechanical connection between the side walls and the rear wall is thus produced. The additional measures mentioned above are thus dispensed with.

Further advantageous configurations of the mechanical connection according to the invention can be gathered from the subclaims and from the following description of an exemplary embodiment of the mechanical connection  
5 according to the invention with reference to the drawing, in which:

Figure 1 shows the completed mechanical connection,

10 Figure 2 shows a view of part of a side wall and of the rear wall just before the rear wall snaps into the side walls, and

Figures 3 to 5 show different states during the  
15 operation of the rear wall snapping into the side walls.

Figure 1 shows a casing part with a mechanical connection according to the present invention, the casing part comprising the base part 1, the side walls  
20 2 and the rear wall 3.

Figure 2 shows the specifics of the details. The side walls 2 have a cutout 4 in the top rear corner. The actual rear wall 3 has an angled section 5, which is  
25 produced before the rear wall 3 is actually swung into position. It is conceivable here for it to be possible for the angled section 5 to be produced at the same time as the side walls 2 are swung into position.

30 The angled sections 5 of the rear wall 3 have hook-like extensions 6 on each of their sides. These hook-like extensions 6 are preferably likewise parts of the single sheet-metal part and each have an outwardly running slope 7 in their front region. When the rear wall 3 is  
35 swung into position, said slope slides against the side walls 2, which have already been swung into position, and pushes them apart from one another until the hook-like extensions 6 can pass into the cutouts 4.

This operation is illustrated in figures 3 to 5. Once the hook-like extensions 6 have passed into the cutouts 4, the rear wall springs back, with the result that the side walls 2 and the rear wall 3 are hooked 5 together.